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SCIE 371

Science 5E Lesson Plan

**Lesson Title:** Interesting Creatures Surviving Environments

**Grade level:** Kindergarten

**Time Allotted:** 60-75 minutes

**MCPS Curriculum 2.0 Science Objective for Kindergarten:**

Indicator 3.1.A.1 Compare and explain how external features of plants and animals help them survive in different environments

b. Compare similar features in some animals and plants and explain how each of these enables the organism to satisfy basic needs

c. Use the information collected to ask and compare answers to questions about how an organism’s external features contribute to its ability to survive an environment

**Seminal Question(s)**: How do animals and plants survive the environments they live in? What are external features? What are some different kinds of external features animals have?

**Lesson Goals/Objectives:**

-Students will be able to identify and describe different environments (tundra, desert, forest, rainforest, and ocean)

- Students will be able to identify and create at least 2 kinds of external features animals have that allow them to survive in their environments

**Prerequisites:**

Students need to have a basic understanding of the different features/adaptations animals have that allow them to survive (i.e. fur keeps them warm). However, there will be books the students can use as resources to initiate their ideas.

**Organization and Management:**

Materials: construction paper, scissors, tape, glue, markers, crayons, string.

Students will be divided into groups based on their tables (they have new seating arrangements). Groups will have their own tables to work at. Students in each group will be given a job – Leader (keep everyone on track), Material Manager (get the materials), Costume Designers (In charge of putting the group’s design together and helping the actor put on the materials, and Actor (the person who will don the design and act out the animal). I will assign the jobs.

**Engagement:**

We will begin this lesson by taking a picture walk through the books Animal Habitats by Julie K. Lundgren and Animals Staying Safe by Xavier Niz. I will point out vocabulary as we walk through the books – camouflage, quills, predator, prey, senses (hear, smell, and see, specifically). After we take the picture walk, I will create a graphic organizer on the white board. I will ask them to tell me some habitats they know about, and the students will name the external features of animals who live in these habitats:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tundra | Desert | Forest | Rainforest | Ocean |
| Fur  Camouflage  Teeth  claws | Hump  Legs  Teeth  claws | Camouflage  Claws  Fangs/teeth  ears | Fangs  Beak  Claws | Gills  Blow hole  fins |

\*Students’ answers

Science talk: “I know you’ve been learning about environments and the animals that live in them. Who can tell me some different habitats that we’ve learned about? What are these habitats like? Now, we’ve also been learning about the animals that live in different environments and the different external features they have that help them to survive. An external feature is a trait the animal has on its body that helps it to survive. For example, an external feature of a lion would be its sharp teeth, which it uses to eat, and its sharp claws, which it uses to hunt and to climb. Who can name another external feature? What’s one feature an animal could have that would help it to survive? (For fur, act as if you were cold but Oh! Now you have fur! You’re nice and warm! Gills, you’re swimming but you can’t go under! Wait! Now you have gills and you can swim with no problems). Let’s think about the external features the animals in these different habitats need to have to survive where they live. “

I will fill out the chart with features the students tell me. They will be able to look back at this as they take part in the activity.

*Directions:* Now that we remember what we know about environments and animals, we are going to come up with our own! We will split up into groups – once you are in your group, you will be given an environment. Your group will have to come up with your own unique animal – give it a name and give it features – at least 2 - that would allow it to survive in your environment. One person will become the animal. Make the features you want the animal to have (with the materials I provide), and then you will act out and teach us all about it.

Example: The Ms. Truecat – my environment was the jungle, so I made a cat. I gave it spots for camouflage, claws so it can climb trees, and big ears so it can hear prey coming along in the jungle.

**Exploration:** I will give the students jobs before each group goes back to their table. Books about their environments will already be on their tables for them to look at. Materials will be on the back table for them to get when they have a plan. They will be given time to come up with a plan, create their animal, and think about what they want to say/present (at least five minutes for planning, 20-30 minutes for creating). This whole time I will be walking around scaffolding.

**Explanation:** After the students have designed their animals, they will be asked to sit down at their group’s table while other groups teach us about the animals they created. The students will be asked to tell us the name of their environment and what it is like there, the name of their animals, and the features they gave it – what features did you give your animal and how would those help the animal to survive?

**Extension:** The costumes the students make will be placed in the Drama center for them to explore and put on plays with.

**Evaluation:** I will be observing throughout the lesson, looking for who is participating and listening to what the students are saying to see if there are any misconceptions. I also will be looking at the costumes they make – each group’s costume they make needs to have at least two external features.

**Anticipating:** Students who finish creating early can can add more features which would help their new animal survive its given environment and can practice what they will say to the other students when they present. I will be placing a game in the Science Center called “Creature’s Features” where they will have to match different features of animals with the environment where the feature would be most helpful.

**Resources:** *Animal Habitats* by Julie K. Lundgren and *Animals Staying Safe* by Xavier Niz. These books have pictures of different animals and habitats as well as descriptions of both. I will use these for the picture walk in the introduction of my lesson and these will be available in the book bin for students to look at after the lesson.